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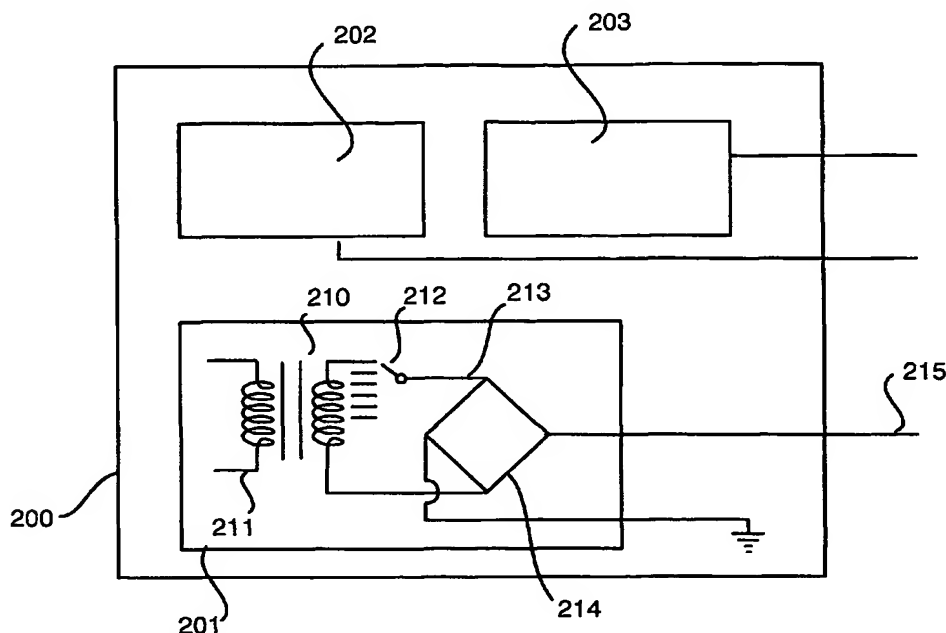
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(54) Title: ION SOURCE CONTROL SYSTEM



(57) Abstract: A gridless ion source operates from a control system (201) that generates an anode voltage (215) comprising a mains rectified signal such that the anode voltage modulates between a first voltage above a threshold and a second voltage below the threshold. The mains rectified signal is provided by transformer (210) receiving a mains input (211). The output of the transformer (213) is rectified by a bridge rectifier (214). In preferred embodiments, the threshold is an ionization threshold such that the ion current is initiated and extinguished in every cycle.

WO 2005/045874 A1



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